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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,800	09/25/2003	Hiroyuki Kato	A-9925	5437

181 7590 06/30/2004
MILES & STOCKBRIDGE PC
1751 PINNACLE DRIVE
SUITE 500
MCLEAN, VA 22102-3833

EXAMINER

MITCHELL, KATHERINE W

ART UNIT PAPER NUMBER

3677

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,800

Applicant(s)

KATO, HIROYUKI

Examiner

Katherine W Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/48/04 and 9/25/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20040202.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

ETAILED ACTION

Oath/Declaration

1. The Declaration filed 1/8/2004 has been entered.

Claim Objections

2. **Claim 1 is objected** to because of the following informalities:
 - the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention, even though the phrase is in the preamble and describes the intended use. See MPEP § 2173.05(d).
 - in line 13, "to press" would be more correct if worded --and presses--, as the pin shank insertion does not automatically serve the purpose of pressing the seal member unless force is applied.
3. **Claim 5 is objected** to because of the following informalities:
 - Line 4, "where" should be --when-- as it is in claim 6.
4. **Claim 8 is objected** to because of the following informalities:
 - Line 6, "a pin" has been previously introduced. Since it is the same pin as the pin in line 5, line 6 should read --the pin-- or --said pin--.
 - Lines 12 and 15 and 16 should be --the at least one pawl-- to agree with line 10.
 - There is no basis to determine the scope of "substantial pressure" in lines 16-17, nor could one determine if he was infringing on the claim.
5. **Claim 10 is objected** to because of the following informalities:

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- Line 3 discloses “at least one of opposed sides of the pin head and the bushing flange” without providing proper antecedent basis;
- Line 3 is missing a comma after “flange”.

6. **Claims 7 and 13 are objected** to because of the following informalities:

- Line 7 of claim 7 and line 6 of claim 13 disclose “the member”. However, both “a second seal member” and “a member having a hole” have been disclosed, thus proper antecedent basis is not provided.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

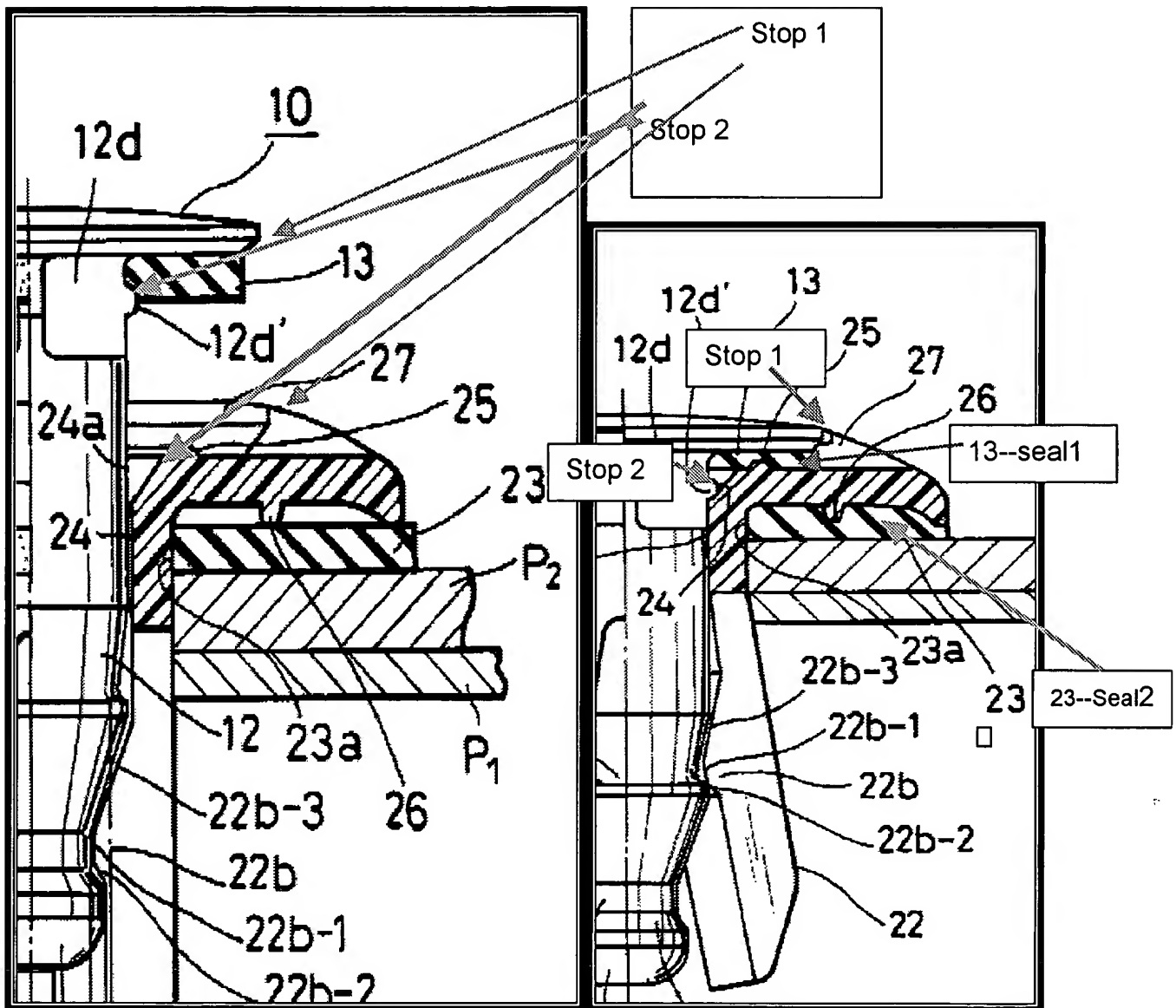
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 1-7 are rejected** under 35 U.S.C. 102(b) as being anticipated by Ueno
US Patent 5846040, hereafter called Ueno.

The most relevant labeled sections of Figures 2 and 5 from Ueno are shown below:



DETAILS OF FIG. 2 (PARTIALLY INSERTED) AND
FIG 5 (FULLY INSERTED) FROM UENO.

Re claim 1: Ueno teaches a clip capable of connecting a member to a body comprising:

- a pin (10) with a head (11) and a shank (12) extending from the head;
- a bushing (20) with a flange (21) and a shank (22) extending from the flange, with a through-hole (24) in said flange and bushing shank, and
- a water tight seal (13) member on the pin shank adjacent to the head and capable of compression between the pin head and the flange. Examiner notes seal (13) is described by Ueno as "elastomeric", which would be inherently water-tight:

e·las·to·mer (î-làs¹te-mer) *noun*

Any of various polymers having the elastic properties of natural rubber.¹

- Wherein a stop (12d' on the pin head in Figs 2 and 5 or angled outer circumferential edge of pin head best shown as touching lead line "11" in Fig 1A) is formed on at least the pin head or the flange to keep a predetermined compressed thickness of the seal member (13) when pin shank (12) is inserted into through hole (24) and presses the seal member between pin head (11) and flange (21) (see Fig 2 - how 12d' fits in 24a and causes the downward movement to stop, and how the raised unshaded wedge near "27" has an angled edge that engages the outer circumferential edge angled projection of pin head 11 (with or

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without projections (t)), thus also limiting compression to a predetermined amount. (Shown uncompressed in Fig 2 and compressed in Fig 5).

- Quoting paragraph [0018] of Ueno, column 6 lines 52-63:

The edge of the through hole 24 on the side with no resilient members 22 is provided with an inwardly tapered portion 24a. This tapered portion 24a facilitates the insertion of the shaft 12 into the through hole 24 of the female member 20 and, when the male member 10 and female member 20 are in full engagement, the tapered portion abuts against the projections 12d' on the fins 12d at the base of the shaft 12. This contact between the projections 12d' and the tapered portion 24a ensures that the male member 10 is not inserted beyond that point, thereby preventing possible damage to the seal 13 by the annular projection 25 on the female member 20 being forced too deeply into the seal 13.

And from column 7 lines 10-16:

While in the above-described configuration the doughnut-shaped resilient seal 13 disposed in contact with the side of the head 11 on which the shaft 12 is located is held in place by projections 12d' on the fins 12d, an alternative arrangement may be used such as the one shown in FIG. 7 in which the seal 13 is kept in position by appropriate projections t around the edge of the head 11.

The projections (t) around the edge also inherently serve as stops to prevent overcompression of the seal.

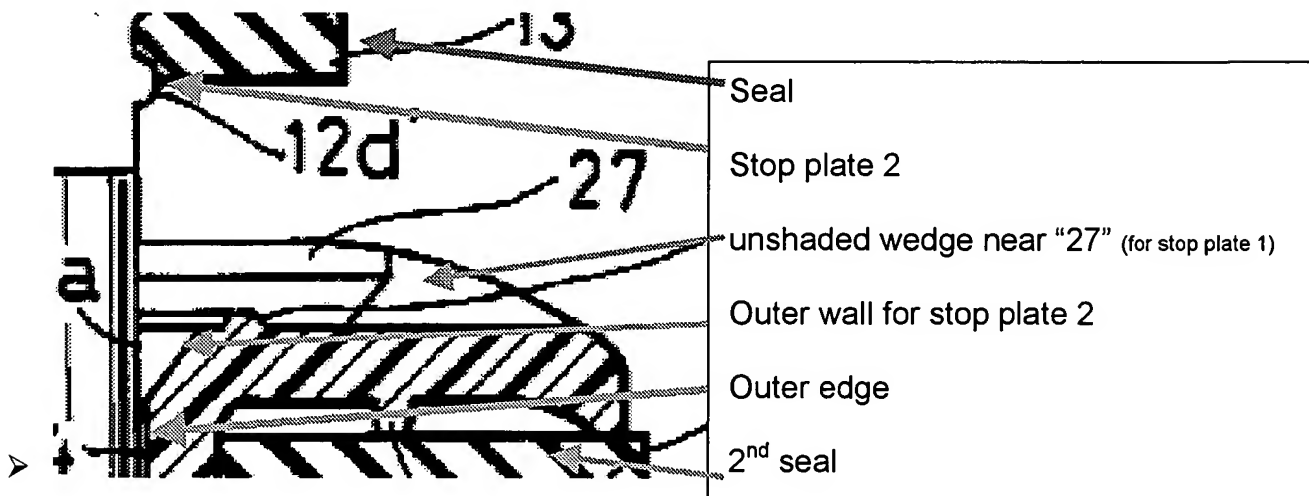
Re claim 2: Ueno shows a clip according to claim 1

- wherein the pin head (11) is a circular plate (Fig 1) with a diameter smaller than diameter of bushing flange (21) (see Fig 2 ---11's diameter is clearly smaller than 21's diameter).
- The stop (12d' or pin outer circumferential edge angled projection) comprises

o plate portions (plate (plăt) *noun* A smooth, flat, relatively thin, rigid body of uniform

thickness.²) extending outwardly from the pin head (Figs 1A, 2, and 5),

➤ and an outer wall (24a) is formed on an outer edge (unnumbered - the outside



➤ edge directly under 24a) of the bushing flange and is disposed to engage the stop plate portions when the seal member is compressed (Figs 1B, 2, and 8 - examiner has shown a blow up of Fig 2 with outer wall 24a /outer edge;)

Similarly, unshaded wedge near "27" comprises an outer wall formed on an outer edge of the bushing flange (see box detail above) and is disposed to engage the stop plate portions comprising the outer circumferential edge angled projection of the pin head (11) (pin head edge shown only in complete Fig 2 and 5, not in detail above) and the height of the outer wall is predetermined to provide a predetermined compressed thickness of the seal member (as the

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height - a function of angle and length of 24a - increases or decreases, so will the compressed thickness, thus inherently once the height of 24a is predetermined, so is the compressed thickness. The same is true of the height of the unshaded wedge member near "27")

Re claim 3: As best shown in Fig 1B, 5, and 8,

- the flange has a recess (the inner flat part of flange, extending from aperture to raised lip best indicated as unshaded wedge member near "27") surrounded by outer wall for receiving the seal member. (Seal member 13 is best shown in Fig 5 fitting in said recess formed on top surface of flange 21)

Re claim 4: Figs 1B and 8 show the gaps (2 are shown)

- formed between an outer edge of the pin head and the outer wall of the bushing flange, except where the stop plates are located, for inserting a tool for separating the pin head from the flange. Fig 3 (in the patent, not copied in this action) shows an overhead plan view showing the pin head, gaps, and flange.

Re claim 5: Ueno further teaches a clip according to claim 1, wherein

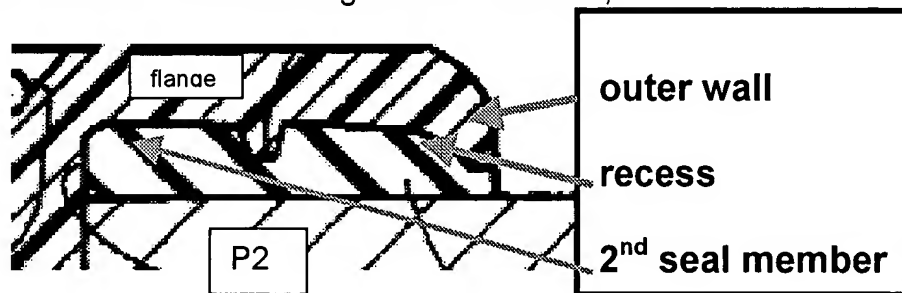
- pin shank (12) and bushing shank (22) have cooperable parts that cause the bushing shank to expand outwardly (Fig 5) at an expanded-diameter-connection position where the pin shank is inserted substantially completely into the bushing shank for connecting a member (P-2) and a body (P-1) having aligned holes (H-2 and H-1. respectively) through which the shanks are inserted.

Re claim 6: Ueno further teaches a clip according to claim 5, wherein

- pin shank (12) and bushing shank (22) have cooperable parts that connect the shanks in a non-expanded-diameter-connection position in which the bushing is not expanded when the pin shank is inserted partially into the bushing shank (Fig 2 - note that pin shank is partially inserted and bushing shank is not expanded).

Re claim 7: Ueno further teaches a clip according to claim 6, further comprising:

- a second seal member (23) on the bushing shank 22 (best seen in Fig 5 - detail shown below) adjacent to the flange for providing a water tight seal (inherent - described as elastomeric seal) between the flange and a member (P-2) having a hole into which the bushing shank is inserted,



- wherein the flange has a recess in which the second seal member is received and that has an outer wall for engaging the member (assuming member P-2) and limiting the compression of the second seal member (detail from upper right of Fig 5). Note that *column* 6 lines 44-51 allow the outer wall to engage member P2.

9. Claims 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Akema et al, US Patent 6514024, hereafter called Akema.

Re claim 8: Akema teaches in Figs 2 and 10-12 and *column* 4 lines 12-39 a clip capable of connecting a member (5 or 2) to a body (6 or 3), comprising:

- a bushing (9) having a flange (13), a shank (14) extending from the flange, and a through hole (Figs 10 and 11 best show inserted in inherent hole) in the flange and shank for receiving pin shank therein; and
- a pin (7) having a head (10) and shank (11) extending therefrom,
- wherein the shanks have cooperable parts (35, 19 for example in Fig 10-12) for expanding the bushing shank when the pin is inserted substantially completely in the bushing shank to an expanded position,
- the bushing shank has at least one pawl (engagement pawl 33, Figs 10-12 and *column 6* lines 47-65) extending inwardly of the bushing shank, and the pin shank has
 - a groove for receiving the pawl in a non-expanded position when the pin shank is partially inserted in bushing shank (groove above 17 in Fig 10) and
 - another groove for receiving the pawl at the expanded position and at which the pawl is free of substantial pressure from the pin shank (groove above 23 in Fig 11),

Re claim 9: Akema further teaches a bushing shank divided longitudinally (best seen in Figs 8-9) and the cooperating parts include internal ribs on the bushing shank (35, best seen in Figs 10-12) and a groove on the pin shank that receives the ribs (groove at 19, Figs 11-12).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akema in view of Ueno.

Re claim 10: As discussed above, Akema teaches all the elements of claim 10 except a seal member between the pin head and bushing flange, and also does not disclose the head or flange recess and stop for limiting movement. Uema teaches a similar clip with a pin and bushing, and further teaches:

- a seal (13) member between the pin head and the flange. Examiner notes seal (13) is described by Ueno as "elastomeric", which would be inherently water-tight;
- the bushing flange has a recess (the inner flat part of flange, extending from aperture to raised lip best indicated as unshaded wedge member near "27") surrounded by outer wall for receiving the seal member. (Seal member 13 is best shown in Fig 5 fitting in said recess formed on top surface of flange 21), as best shown in Fig 1B, 5, and 8,
- a stop (12d' on the pin head in Figs 2 and 5 or angled outer circumferential edge of pin head best shown as touching lead line "11" in Fig 1A) is formed on at least the pin head or the flange to keep a predetermined compressed thickness of the seal member (13) when pin shank (12) is inserted into through hole (24) and

presses the seal member between pin head (11) and flange (21) (see Fig 2 - how 12d' fits in 24a and causes the downward movement to stop, and how the raised section best indicated as unshaded wedge member near "27" has an angled edge that engages the outer circumferential edge angled projection of pin head 11 (with or without projections (t)), thus also limiting compression to a predetermined amount. (Shown uncompressed in Fig 2; compressed in Fig 5).

- Quoting paragraph [0018] of Ueno, *column* 6 lines 52-63:

The edge of the through hole 24 on the side with no resilient members 22 is provided with an inwardly tapered portion 24a. This tapered portion 24a facilitates the insertion of the shaft 12 into the through hole 24 of the female member 20 and, when the male member 10 and female member 20 are in full engagement, the tapered portion abuts against the projections 12d' on the fins 12d at the base of the shaft 12. This contact between the projections 12d' and the tapered portion 24a ensures that the male member 10 is not inserted beyond that point, thereby preventing possible damage to the seal 13 by the annular projection 25 on the female member 20 being forced too deeply into the seal 13.

And from column 7 lines 10-16:

While in the above-described configuration the doughnut-shaped resilient seal 13 disposed in contact with the side of the head 11 on which the shaft 12 is located is held in place by projections 12d' on the fins 12d, an alternative arrangement may be used such as the one shown in FIG. 7 in which the seal 13 is kept in position by appropriate projections t around the edge of the head 11.

The projections (t) around the edge also inherently serve as stops to prevent overcompression of the seal.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Akema and Ueno before him at the time the invention was made, to modify Akema as taught by Ueno to include the seal and recess and stop structure of Ueno, in order to obtain a watertight seal, as taught as a benefit by Ueno in *column* 2

lines 14-17 and 55-65. Further, one would have been motivated to make such a combination because watertight seals are desired in the automotive field to prevent rusting, and thus a product with a large market would have been obtained, as taught/suggested by Ueno in *column* 1 lines 12-17, and the structure with the stops and recesses would further result in an enhanced appearance grommet with no bulging seal when the pin and bushing are fully engaged, as further discussed by Ueno in *column* 6 lines 44-51.

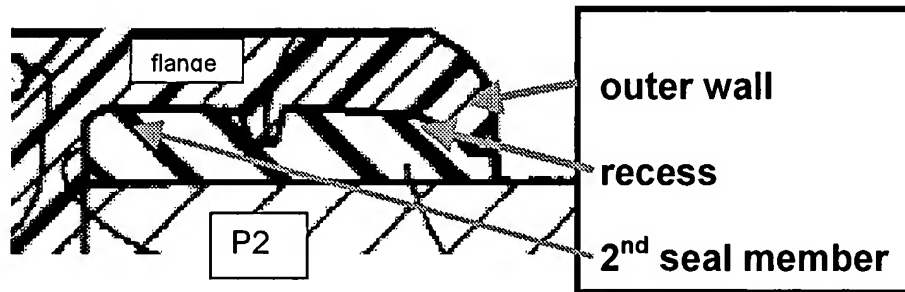
Re claim 11: Ueno further teaches the stop includes portions of the pin head (12d' on the pin head in Figs 2 and 5 or angled outer circumferential edge of pin head best shown as touching lead line "11" in Fig 1A) that engage cooperable portions of the bushing flange (see Fig 2 - how 12d' fits in 24a and causes the downward movement to stop, and how the raised section best indicated as unshaded wedge member near "27" has an angled edge that engages the outer circumferential edge angled projection of pin head 11 (with or without projections (t)).

Re claim 12: The engaging portions are located adjacent peripheries of the pin head and bushing flange, as shown in the details of Ueno's Figs 2 and 5 provided earlier in this action.

Re claim 13: Ueno further teaches a clip according to claim 10, further comprising:

- a second seal member (23) on the bushing shank 22 (best seen in Fig 5 - detail shown below) adjacent to the flange in a second recess in which the second seal member is received and that has a wall for engaging the member (assuming member P-2) and limiting the compression of the second seal member (detail

from upper right of Fig 5) between the flange and a member (P-2) having a hole into which the bushing shank is inserted. Note that *column* 6 lines 44-51 allow the outer wall to engage member P2.



Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwm

6/25/2004

ATTACHMENT: next page - Figs 1 (labeled a & B by examiner), 2,5, and 8 of Ueno

Katherine
Mitchell

FIG 1 A

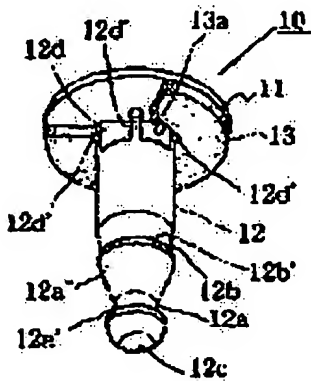


FIG 2

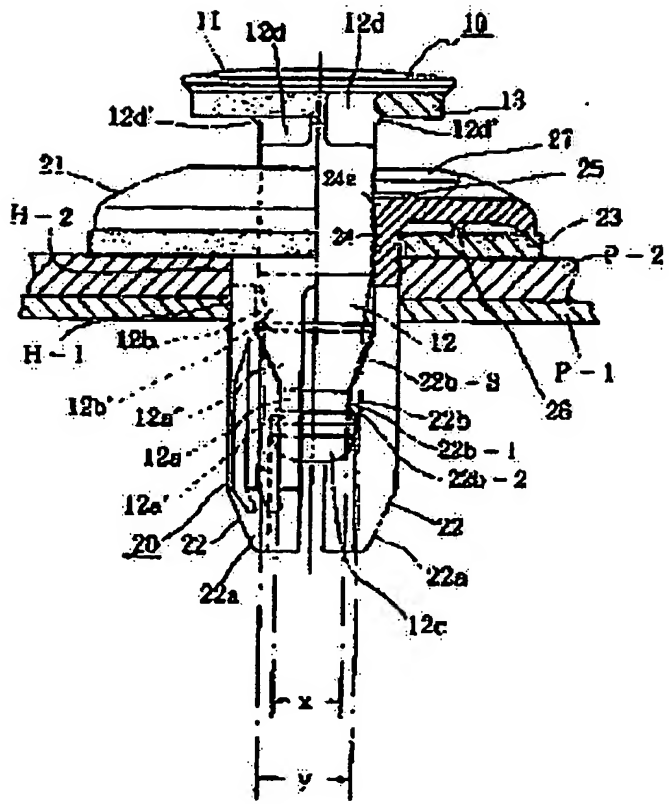


FIG 1B

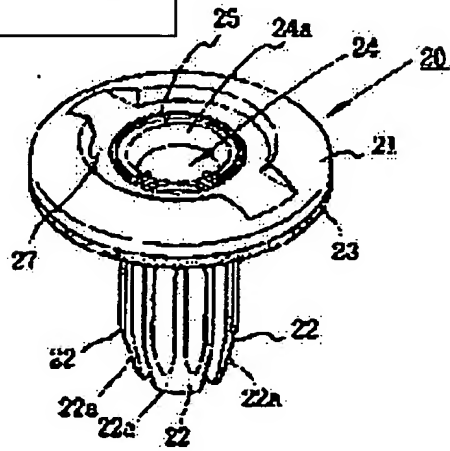


FIG 5

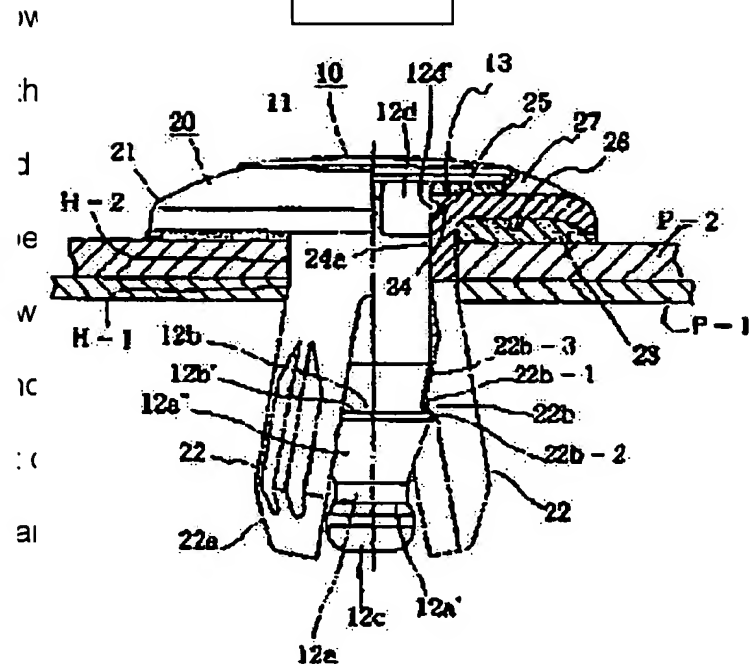


FIG 8

